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## SEMICONDUCTOR THIN FILM (54) MANUFACTURE OF

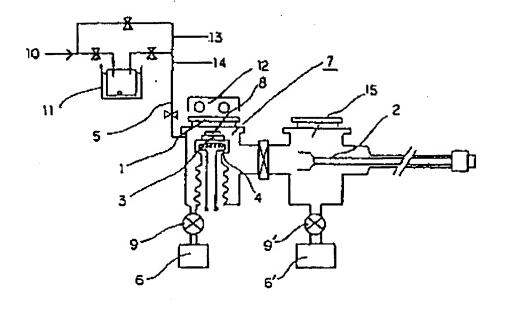
(57) Abstract:

single crystalline substrate by photoa single crystalline or amorphous desirably, hydrogen. consisting of fluorosilane, silane or, discomposing a mixture gas thin film with superior orientation on PURPOSE: To form a semiconductor

crystallineor amorphous single CONSTITUTION: A single

cleaned with washing or etching is crystalline substrate whose surface is placed in a thin film forming device 7 window 1, a substrate holding means which has at least a light permiating dibolane (B2H6) is usable. As V SimH2m+2 (integer of m=1W3) are vaccum discharge. The material gas discharge means 6, and the substrate or arsine (AsH3) is usable. group compounds, phosphine (PH3) to be added to the mixture gas, usable. As the III group compounds disilane, trisilane expressed with usable. As the silane, monosilane, nFn(integer of n=1W3) or Si2F6 is former. As the fluorosilane, SiH4fluorosilane being more than twice he fluorosilane being 0.5W50 and the the flowing ratio of silane to is supplied to the said device, with is heated to 100W400°C under introduction means 5 and a vaccum 3, a substrate heating means 4, a gas flowing ratio of hydrogen to the

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